IN THE CLAIMS:

Please amend claims 26, 35, 51, and 53 by replacing the claims as follows:

1-25. (Cancelled)

26. (Currently Amended) A method for depositing a silicon carbide layer on a substrate, comprising:

introducing a processing gas comprising an organosilicon compound and a dopant compound into a plasma enhanced CVD processing chamber containing the substrate therein, wherein the organosilicon compound consists essentially of silicon, carbon, and hydrogen, and has a carbon atom to silicon atom ratio of 6:1 or greater; and

reacting the organosilicon compound to form the silicon carbide layer having a dielectric constant less than 4.

27. (Previously Presented) The method of claim 26, wherein the dopant compound is selected from the group consisting of phosphine (PH_3), borane (BH_3), diborane (B_2H_6), silazane compounds, trimethylsilane, oxygen (O_2), ozone (O_3), carbon monoxide (CO), carbon dioxide (CO_2), and combinations thereof.

28. (Previously Presented) The method of claim 26, further comprising exposing the silicon carbide layer to a plasma treatment process.

29. (Cancelled)

30. (Previously Presented) The method of claim 26, wherein the dopant compound is selected from the group consisting of an oxygen-containing compound, a nitrogen-containing compound, a boron-containing compound, a phosphorus-containing compound, and combinations thereof.

31-34. (Cancelled).

35. (Currently Amended) A method for processing a substrate having metal features formed therein, comprising:

depositing a barrier layer on the substrate on the metal features by introducing a processing gas comprising an organosilicon compound and a dopant compound into a plasma enhanced CVD processing chamber containing the substrate therein, wherein the organosilicon compound consists essentially of silicon, carbon, and hydrogen, and has a carbon atom to silicon atom ratio of about 6:1 or greater and the barrier layer has a dielectric constant less than 5; and

depositing a first dielectric layer adjacent the barrier layer, wherein the first dielectric layer comprises silicon, oxygen, and carbon and has a dielectric constant of about 3 or less.

36. (Previously Presented) The method of claim 35, further comprising depositing a silicon carbide etch stop on the first dielectric layer.

37. (Previously Presented) The method of claim 36, wherein the silicon carbide etch stop is depositing by reacting an organosilicon compound consists essentially of silicon, carbon, and hydrogen, and has a carbon atom to silicon atom ratio of about 6:1 or greater.

38. (Cancelled)

39. (Previously Presented) The method of claim 35, further comprising exposing the deposited barrier layer to a plasma treatment process.

40. (Cancelled)

41. (Previously Presented) The method of claim 35, wherein the dopant compound is selected from the group consisting of an oxygen-containing compound, a

nitrogen-containing compound, a boron-containing compound, a phosphorus-containing compound, and combinations thereof.

42-45. (Cancelled)

46. (Previously Presented) A method for depositing a silicon carbide layer on a substrate, comprising:

introducing a processing gas comprising an organosilicon compound into a processing chamber containing the substrate therein, wherein the organosilicon compound has the formula $SiH_a(CH_3)_b(C_6H_5)_c$, wherein c is 2 and a+b+c=4; and

reacting the organosilicon compound to deposit the silicon carbide layer on the substrate.

47. (Previously Presented) The method of claim 46, wherein the processing gas further comprises a dopant selected from the group consisting of an oxygen-containing compound, a nitrogen-containing compound, a boron-containing compound, a phosphorus-containing compound, organosiloxane compounds, 1,3,5,7-tetramethylcyclotetrasiloxane (TMCTS), octamethylcyclotetrasiloxane (OMCTS), 1,1,3,3-tetramethyldisiloxane (TMDSO), phosphine (PH_3), borane (BH_3), diborane (B_2H_6), silazane compounds, trimethylsilane, oxygen (O_2), ozone (O_3), carbon monoxide (CO), carbon dioxide (CO_2), ammonia (NH_3), nitrogen (N_2), and combinations thereof.

48. (Previously Presented) The method of claim 46, wherein the organosilicon compound is selected from the group consisting of diphenylmethylsilane ($SiH_1(CH_3)_1(C_6H_5)_2$), diphenyldimethylsilane ($Si(CH_3)_2(C_6H_5)_2$), diphenylsilane ($SiH_2(C_6H_5)_2$), and combinations thereof.

49. (Previously Presented) The method of claim 46, wherein the silicon carbide layer is deposited in a damascene structure as a material layer selected from the group consisting of a silicon carbide-containing barrier layer and a silicon carbide-containing etch stop layer.

50. (Previously Presented) The method of claim 46, wherein the silicon carbide layer has a dielectric constant of less than 4.

51. (Currently Amended) A method for depositing a silicon carbide layer on a substrate, comprising:

introducing a processing gas comprising an organosilicon compound that consists essentially of silicon, carbon, and hydrogen, and has a carbon atom to silicon atom ratio of 6:1 or greater to deposit the silicon carbide layer on the substrate and a dopant into a plasma enhanced CVD processing chamber containing the substrate therein, wherein the silicon carbide layer comprises less than about 15 atomic percent of oxygen; and[[.]]

reacting the organosilicon compound to deposit the silicon carbide layer on the substrate.

52. (Previously Presented) The method of claim 51, further comprising exposing the deposited silicon carbide layer to a plasma treatment process.

53. (Currently Amended) The method of claim 51, wherein the ~~processing gas further comprises a~~ dopant is selected from the group consisting of a boron-containing compound, a phosphorus-containing compound, phosphine (PH_3), borane (BH_3), diborane (B_2H_6), silazane compounds, oxygen (O_2), ozone (O_3), carbon monoxide (CO), carbon dioxide (CO_2), and combinations thereof.

54. (Previously Presented) The method of claim 51, wherein the silicon carbide layer has a dielectric constant of less than 4.

55. (Previously Presented) The method of claim 51, wherein the silicon carbide layer is deposited in a damascene structure as a material layer selected from the group consisting of a silicon carbide-containing barrier layer and a silicon carbide-containing etch stop layer.

56. (Previously Presented) The method of claim 51, further comprising depositing a dielectric layer adjacent the silicon carbide layer.